In the claims:

1.-31. (Canceled)

32. (Currently Amended) A method of preparing a cancer vaccine, comprising:

(a) contacting a freshly isolated neoplastic cell population with a first fluorescent dye,

(b) contacting ~~an antigen-presenting~~ a dendritic cell population with a second fluorescent dye, wherein said first dye is different from said second dye,

(c) contacting said neoplastic cell population and said ~~antigen-presenting~~ dendritic cell population with one another under conditions that promote cell fusion,

(d) purifying the resultant hybrid cell population by fluorescence activated cell sorting, and

(e) resuspending the resultant hybrid cell population in a pharmaceutically acceptable vehicle to obtain the tumor vaccine;

wherein said cell sorting does not involve antibiotic or metabolic selection, said purification is accomplished in less than about 24 to 48 hours, after exposure of said neoplastic cell population and said dendritic cell population to said conditions that promote cell fusion, and the tumor antigen diversity of the starting tumor cell ~~populations~~ population is preserved in the resultant hybrid cell population.

33.-34. (Canceled)

35. (Currently Amended) The method of claim 32 wherein the resultant hybrid cell population contains less than 10% of its total population as reactant cells.

36. (Currently Amended) The method of claim 32, wherein the resultant hybrid cell population contains less than 5% of its total population as reactant cells.

37.-40. (Canceled)

41. (Currently Amended) The method of claim 32,[-] wherein said pharmaceutically acceptable vehicle is normal saline.

42.-43. (Canceled)

44. (Currently Amended) A method of preparing a hybrid cell preparation ~~tumor vaccine~~, comprising:

(a) contacting a freshly isolated tumor cell population with a first fluorescent dye,

(b) contacting a dendritic cell population with a second fluorescent dye, wherein said first dye is different from said second dye,

(c) contacting said tumor cell population and said dendritic cell population with one another under conditions that promote cell fusion, and

(d) purifying the resultant hybrid cell population by fluorescence activated cell sorting, ~~and~~

~~(e) resuspending the resultant hybrid cell population in a pharmaceutically acceptable buffer;~~

wherein said cell sorting does not involve antibiotic or metabolic selection, said purification is accomplished in less than about 24 to 48 hours, after exposure of said tumor cell population and said dendritic cell population to said conditions that promote cell fusion, ~~the resultant cell population contains less than 5% reactant cells,~~ and the tumor antigen diversity of the starting tumor cell populations is preserved in the resultant hybrid cell population.

45. (New) The method of claim 44, further comprising:

(e) resuspending the resultant hybrid cell population in a pharmaceutically acceptable buffer.

46. (New) The method of claim 44 wherein the resultant hybrid cell population contains less than 10% of its total population as reactant cells.

47. (New) The method of claim 44, wherein the resultant hybrid cell population contains less than 5% of its total population as reactant cells.

48. (New) The method of claim 45, wherein said pharmaceutically acceptable vehicle is normal saline

49. (New) The method of claim 44, wherein said first and second fluorescent dyes are endotoxin-free, pyrogen-free or both.

50. (New) The method of claim 44, wherein said tumor cell is a primary tumor cell.

51. (New) The method of claim 32, wherein said first and second fluorescent dyes are endotoxin-free, pyrogen-free or both.

52 (New) The method of claim 32, wherein said neoplastic cell is a tumor cell.

53. (New) The method of claim 52, wherein said tumor cell is a primary tumor cell.